

*REMARKS*

In this response, Claims 32-35 have been combined into amended claim 32. Claims 37-39 have been added to better describe the subject matter of applicants inventions. Support for the addition of claim 37 is found, for example, at page 15, line 10 of the specification. Support for claim 38 is found, for example, at table 1 of the specification. Support for claim 39 is found in Example 3 of the specification. The entry of these amendments is respectfully requested. Applicant notes that all other rejections have been withdrawn.

**Rejections under 35 U.S.C. 112 first paragraph.**


Claims 4-8, 10, 11, 13-26, 28 and 30-36 stand rejected under 35 U.S.C. 112, first paragraph for failure to comply with the enablement requirement. The Office asserts that the specification does not enable the broad scope of the claims. Applicants respectfully traverse. Applicants assert that the teachings of the instant application would instruct one of ordinary skill in the art how to transform multiple varieties of cotton using multiple vectors and marker genes. How a teaching is set forth, by specific example or broad terminology, is not important. See *In re Marzocchi*, 439 F.2d 220, 223-24 169 USPQ 367, 370 (CCPA 1971). Thus, the claims need not recite such factors where one of ordinary skill in the art to whom the specification and claims are directed would consider them obvious. In support of Applicants' position that claim 31 is enabled for broad applicability, Applicants supply the attached documentary evidence. The attached data is a characterization of 15 transgenic cotton lines that have been derived from transformation of fibrous root explant in accordance with the process of the present invention using a different agrobacterium strain and different vector. Specifically, the examples show successful transformation of cotton lines using agrobacterium strain AGL1 with a vector containing green fluorescent protein (GFP) and NPTII as markers. One of ordinary skill in the art would readily appreciate the interchangeability of the luciferase marker gene as exemplified in the present application for the GFP marker gene described in the enclosed document. Similarly, one of ordinary skill in the art would readily appreciate the

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interchangeability of the agrobacterium strain AGL1 described in the enclosed document. Accordingly, Applicants respectfully assert that the enclosed data supports broad enablement of the claims in the instant application and requests that the outstanding rejections be withdrawn.

Applicants believe the present claims are in condition for allowance and respectfully request a timely notice to that effect be issued. Should additional issues arise that can be effectively dealt with in a timely discussion with Applicants' representative, including Applicants' request that the finality of the outstanding office action be withdrawn, the Examiner is respectfully asked to contact the undersigned so that the case can be quickly issued.

Respectfully submitted,

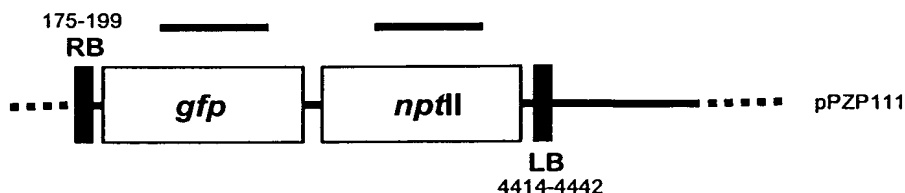
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**ATTACHMENT:** Data showing additional transformation experiments

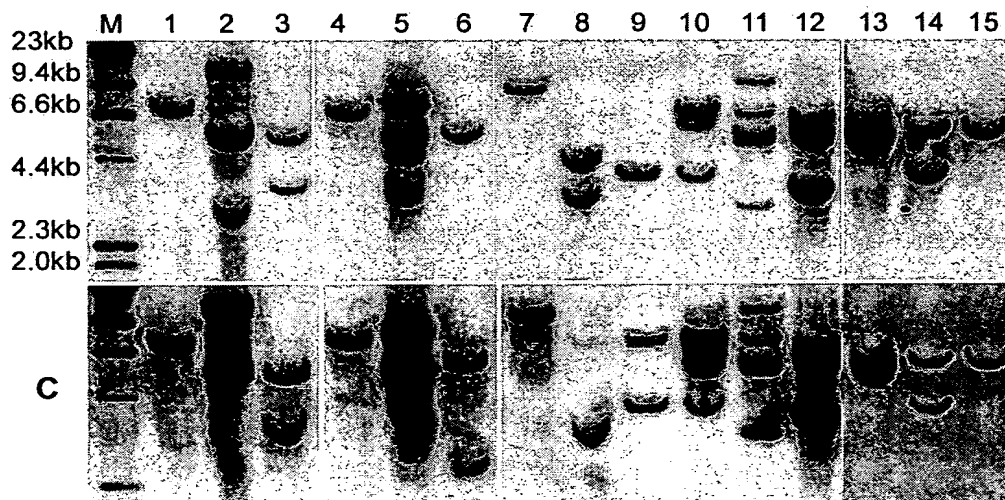
1344250\_1.WPD



**A**



**B**



*Molecular characterization of transgenic cotton lines derived from fibrous root explants infected by agrobacterium AGL1 with binary vector pPZP-GFP*

A: The binary vector pPZP-GFP, which was derived by cloning a GFP encoding sequence into the *Pst*I/*Eco*RI sites of the binary vector pPZP111 (Haidukiewicz et al. 1995). *nptII* and *gfp* are two expression cassettes in T-DNA encoding GFP protein and NPTII. One region for GFP coding sequence and one region for NPTII coding sequence (black lines) were amplified and labeled as probes for genomic southern blot hybridization.

B. Genomic southern blot hybridization to GFP probe of 15 transgenic cotton lines derived from fibrous root explant of Coker 312. M is the DIG labeled lambda DNA digested by HindIII.

C. Genomic southern blot hybridization to NPTII probe of the same 15 transgenic cotton lines.

Reference:

1. Hajdukiewicz, P., Svab, Z. & Maliga, P. *Plant Mol Biol* **25**, 989-94 (1994).